SMART DISPLAY SPECIFICATION



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SPECIFICATION

MODEL NO. : WL0F00035000XGDACSA00-FC

Summary

3.5 Inch Smart Display Feature

1. Input voltage dynamic range 5V to 28V, typical voltage 12V.
2. Self-testing after booting function.
3. RS485 communication interface.
4. Built in 16MB external flash memory to store the font and Object Dictionary Data.
5. Support capacitive touch panel (CTP).
6. Build in buzzer and can be controlled by Master Device.
7. Demo set HOST can be used on multiple platforms, such as Computer (with USB to RS485 Dongle), MCU, Raspberry Pi.
8. GPIO PIN support
9. Polarity diode protection in power root.

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Product information

General information

Item	Standard Value	Unit
Operating voltage	5 ~ 28	Vdc
Communication Interface	RS485	--
MCU	STM32F750	N/A
Flash ROM	16	MB
SDRAM	8	MB
LCD display size	3.5	inch
Dot Matrix	320 × 3(RGB) × 240	dot
Module dimension	100(W) × 82(H) × 13.2(D)	mm
Active area	70.08(W) × 52.56(H)	mm
Pixel pitch	0.219 × 0.219	mm
Brightness	Min: 300; Typ: 400	cd/m^2
LCD type	TFT, Normally Black, Transmissive	
View Direction	80/80/80/80	
Aspect Ratio	4:3	
Touch Panel	With CTP	
Surface	Glare	

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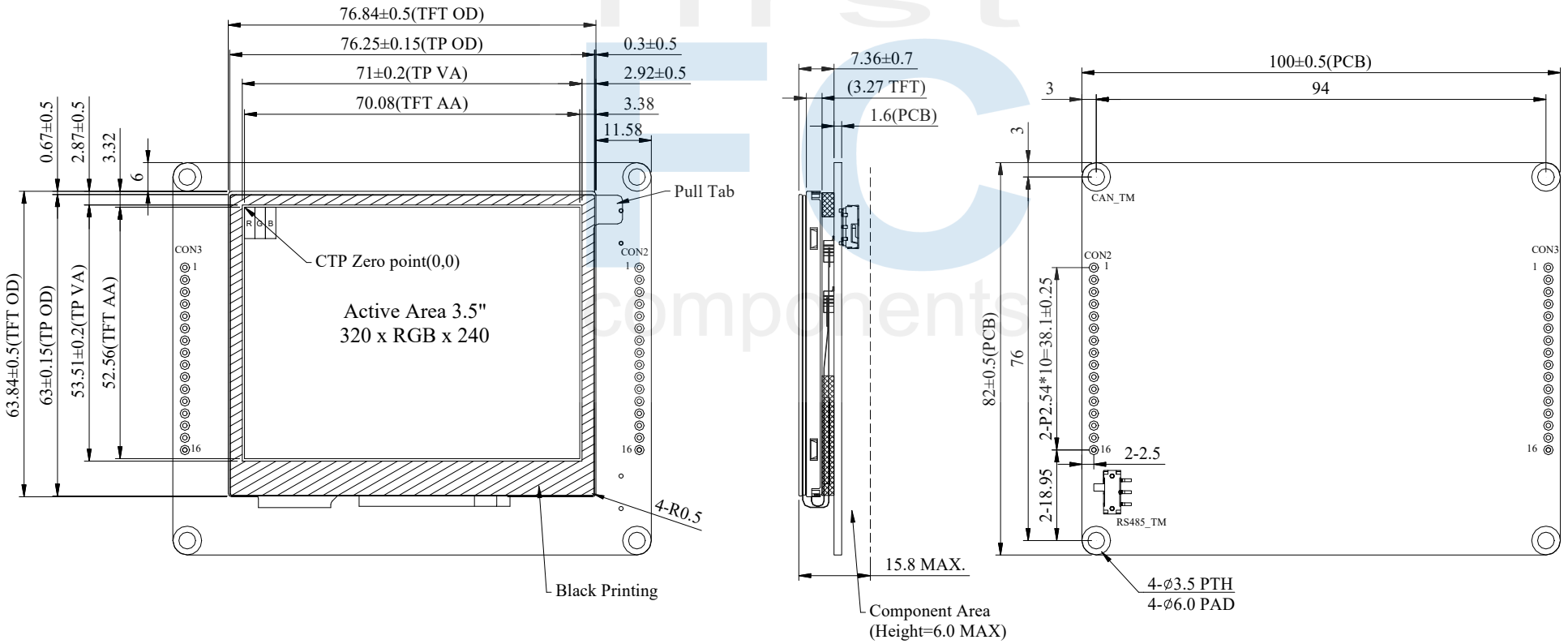
Contour Drawing

CON2

PIN	SYMBOL	PIN	SYMBOL
1	VIN	9	VBUS
2	GND	10	Reserve
3	Reserve	11	Reserve
4	Reserve	12	GND
5	GND	13	VIN
6	GND	14	RS485_A
7	Reserve	15	RS485_B
8	Reserve	16	GND

CON3

PIN	SYMBOL	PIN	SYMBOL
1	+3V3	9	IO_0
2	SWCLK	10	IO_1
3	GND	11	IO_2
4	SWDIO	12	IO_3
5	NRST	13	IO_4
6	GND	14	IO_5
7	WKUP	15	IO_6
8	BOOT0	16	IO_7



The non-specified tolerance of dimension is ±0.3mm.

Absolute Maximum Ratings

Item	Symbol	Min	Typ	Max	Unit
Operating Temperature	TOP	-30	—	+80	℃
Storage Temperature	TST	-30	—	+80	℃

Electrical Characteristics

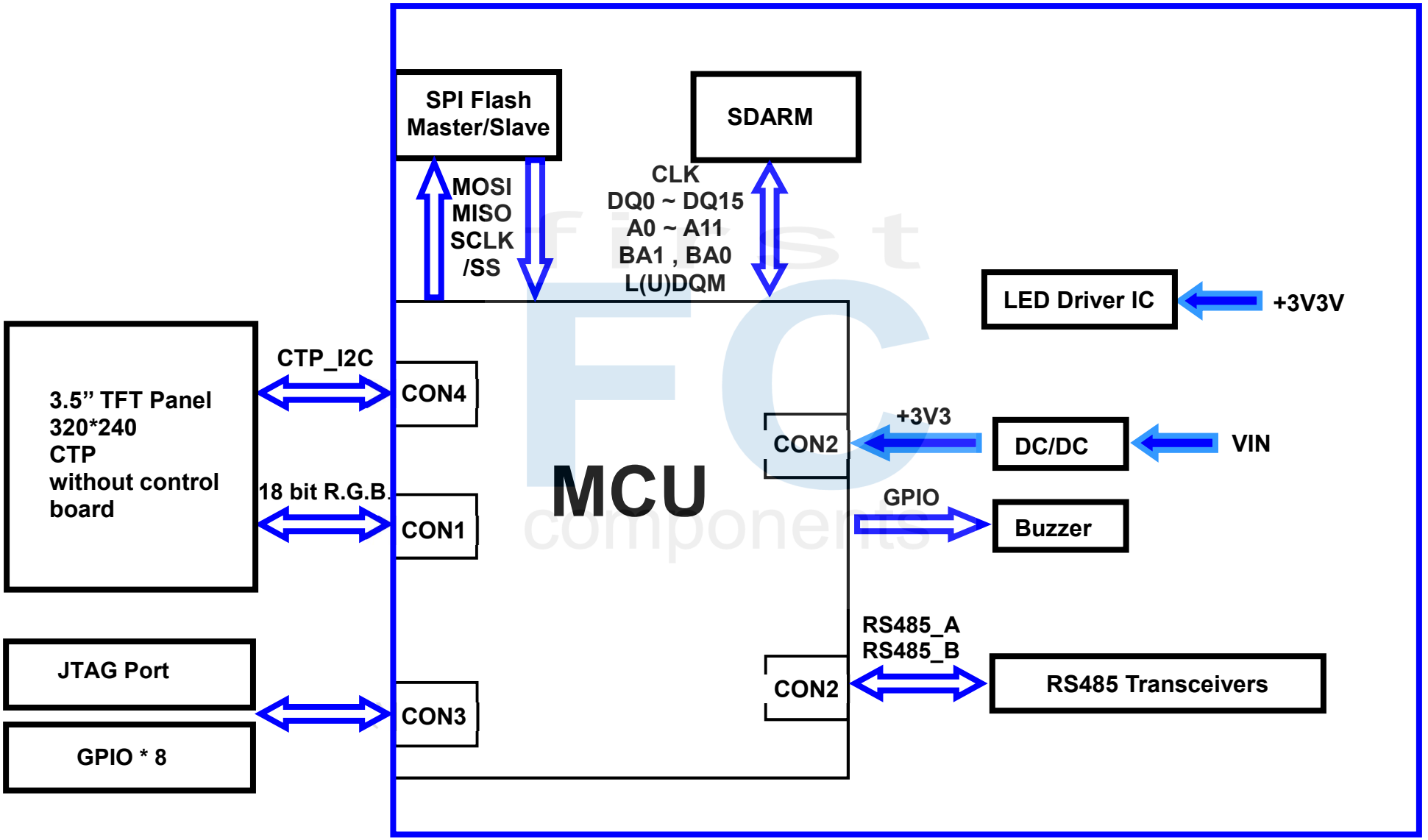
Item	Symbol	Min	Typ	Max	Unit
Supply Voltage	VIN	5	12	28	V
Supply Current	ICC	-	150	-	mA
I/O pin Voltage	--	--	--	3.3	V

BOM

Item	Description
LCM	WF35-320240XD#0PW3-FC
PCBA	SV10003R500XA00N0103

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Block diagram



Interface

CON2 definition:

Pin	Symbol	Function	Remark
1	VIN	Power +5V~28V	Input
2	GND	Power GND	--
3-13	Reserved	--	--
14	RS485_B	RS485 B	I/O
15	RS485_A	RS485 A	I/O
16	GND	Power GND	--

CON3 definition:

Pin	Symbol	Function	Remark
1	+3V3	3.3V power for JTAG interface	Output
2	SWCLK	CLK pin for JTAG interface	Input
3	GND	GND for JTAG interface	--
4	SWDIO	Data pin for JTAG interface	I/O
5	NRST	Reset pin for JTAG interface	Input
6	GND	Power GND	--
7	WKUP	WKup,ADC,Timer,Event,I/O	Input
8	BOOT0	Lo: Internal flash boot (Default) Hi: External flash boot	Input
9	IO_0	ADC,DAC,Timer,Event,I/O @3.3V	I/O
10	IO_1	ADC,Timer,Event,I/O @3.3V	I/O
11	IO_2	ADC,Timer,Event,I/O @3.3V	I/O
12	IO_3	RST,Timer,Event,I/O @3.3V	I/O
13	IO_4	RST,Timer,Event,I/O @3.3V	I/O
14	IO_5	ADC,Timer,Event,I/O @3.3V	I/O
15	IO_6	RST,Timer,Event,I/O @3.3V	I/O
16	IO_7	RST,ADC,Event,I/O @3.3V	I/O

@3.3V : I/O allow below 3.3V input, If exceeding 3.3V may cause MCU damage.

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